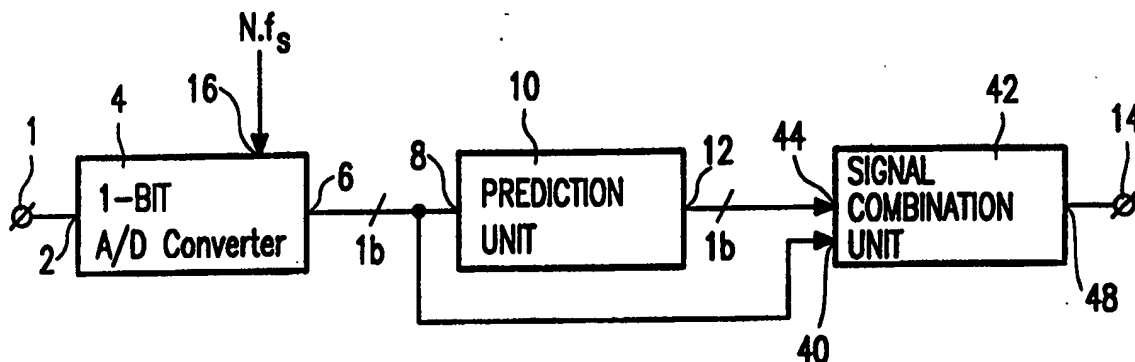




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/IB97/01303  <b>(22) International Filing Date:</b> 20 October 1997 (20.10.97)  <b>(30) Priority Data:</b> 96203105.0      7 November 1996 (07.11.96)      EP <i>(34) Countries for which the regional or international application was filed:</i> NL et al. 97201680.2      4 June 1997 (04.06.97)      EP <i>(34) Countries for which the regional or international application was filed:</i> NL et al.  <b>(71) Applicant:</b> PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).  <b>(71) Applicant (for SE only):</b> PHILIPS NORDEN AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE).  <b>(72) Inventors:</b> VAN DER VLEUTEN, Renatus, Josephus; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). BRUEKERS, Alphons, Antonius, Maria, Lambertus; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). OOMEN, Arnoldus, Werner, Johannes; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).		<b>(74) Agent:</b> VAN DER KRUK, Willem, L.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).  <b>(81) Designated States:</b> BR, CN, ID, IL, JP, KR, MX, SG, VN, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>  <b>(88) Date of publication of the international search report:</b> 25 June 1998 (25.06.98)

(54) Title: DATA PROCESSING OF A BITSTREAM SIGNAL



## (57) Abstract

A data processing apparatus is disclosed for data processing an audio signal. The data processing apparatus comprises an input terminal (1) for receiving the audio signal, a 1-bit A/D converter (4) for A/D converting the audio signal so as to obtain a bitstream signal, a prediction unit (10) for carrying out a prediction step on the bitstream signal so as to obtain a predicted bitstream signal, a signal combination unit (42) for combining the bitstream signal and the predicted bitstream signal so as to obtain a residue bitstream signal, and an output terminal (14) for supplying the residue bitstream signal (Figure 1). Further, a recording apparatus (Figure 4) and a transmitter apparatus (Figure 5) comprising the data processing apparatus are disclosed. Other data processing apparatuses can be found in the figures 18, 19 and 20. In addition, another data processing apparatus (Figure 7) for converting the residue bitstream signal into an audio signal is disclosed, as well as a reproducing apparatus (Figure 9) and a receiver apparatus (Figure 10) comprising the other data processing apparatus.

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 97/01303

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: G11B 20/10, H03M 7/32, H04B 1/66

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: H03M, H04B, G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## CLAIMS, WPI, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4905002 A (PAUL W. JONES ET AL), 27 February 1990 (27.02.90), column 2, line 5 - line 35; column 3, line 6 - column 4, line 2 --	1-3,10,11, 17,18,24,25
P,X	US 5621760 A (HIROKI GOTOH ET AL), 15 April 1997 (15.04.97), column 2, line 31 - column 3, line 52 --	17,24,25
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A	US 4593398 A (DOUGLAS J. MILLAR), 3 June 1986 (03.06.86), see the whole document --	1,10,11,17, 24,25

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Information on patent family members

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